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الف) ext | $\frac{-b}{2a} = \frac{4}{4} = 1$ ، $y = 2 - 4 + 1 = -1$

min دارد

$a > 0$

ب) ext | $\frac{-b}{2a} = \frac{-3}{-4} = \frac{3}{4}$

$-\frac{\Delta}{4a} = \frac{-(9-40)}{-8} = \frac{+31}{-8} = \frac{-31}{8}$

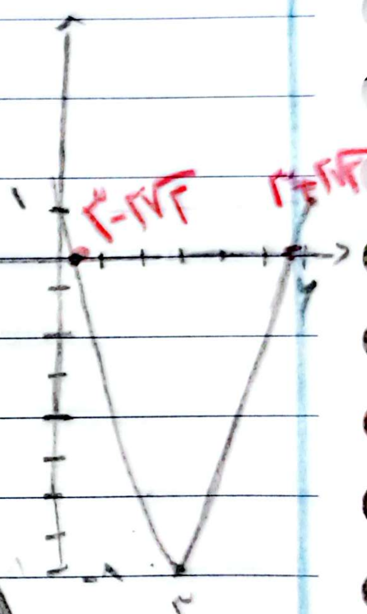
min دارد

الف) ext | $\frac{-b}{2a} = \frac{6}{2} = 3$

$9 - 18 + 1 = -8$

$x = 0$: $y = 1$ ... ریشه‌ها $\frac{6 \pm \sqrt{32}}{2}$ = ...

$x = 6$: $y = 1$ ... $0 < \frac{6 - \sqrt{32}}{2} < 1$



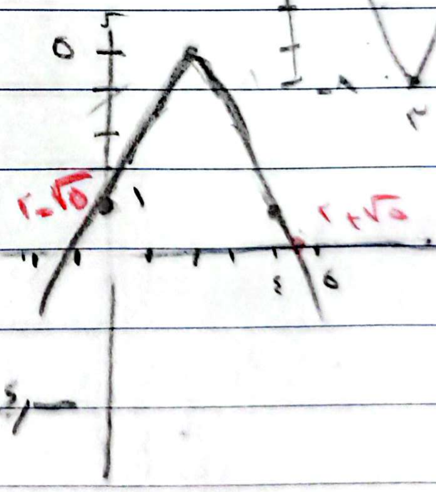
ب) ext | $\frac{-b}{2a} = \frac{-4}{-2} = 2$

$y = -4 + 8 + 1 = 5$

max دارد $a < 0$

$x = 0$: $y = 1$ ... ریشه‌ها $\frac{-4 - \sqrt{16 + 4}}{-2}$ = ...

$x = 4 \rightarrow y = 1$



$-1 < \frac{-4 + \sqrt{16+4}}{-2} < 0$

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$(x-\alpha)^2(x-\beta) =$ -3

$(x^2+\alpha^2-2\alpha x)(x-\beta) = 4x(x^2 - \beta x^2 + \alpha^2 x - \beta\alpha^2 - 2\alpha x^2 + 2\alpha\beta x) = 4x^3 + 4(-\beta - 2\alpha)x^2 - 4(\alpha^2 + 2\alpha\beta)x - 4\beta\alpha^2$

K

(۲)

$-4\beta\alpha^2 = -2$ $K = 4(-\beta - \alpha - \alpha) = 4 \times \frac{-3}{4} = -3$

$\beta\alpha^2 = \frac{+1}{2}$ $-1 \quad +\frac{1}{4}$

$\beta\alpha(\alpha) = \frac{1}{2}$ $\alpha = \frac{1}{-4}$

-2

$(\sqrt{\alpha} - \sqrt{\beta})^2 = (1)^2$ $(\sqrt{\alpha} - \sqrt{\beta})^2 = 1$ $\alpha + \beta - 2\sqrt{\alpha\beta} = 1$ (۴)

$3m - 2\sqrt{m} = 1$

$\alpha\beta = \frac{c}{a} = \frac{m}{1} = m$ $3m - 2\sqrt{m} - 1 = 0$

$\alpha + \beta = \frac{-b}{a} = \frac{3m}{1} = 3m$ $m - 2\sqrt{m} - 3 = 0$

$(\sqrt{m} - 3)(\sqrt{m} + 1) = 0$

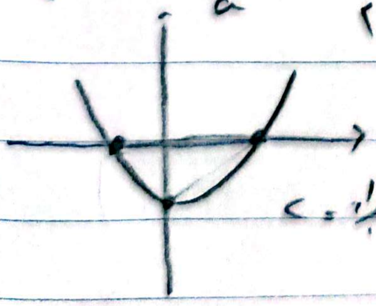
$\sqrt{m}$ ↗ $-\frac{1}{3}$ غ ق ق

↘ $\frac{3}{2}, 1$ ق ق ✓ $m = 1$

$2x^2 - x - 1 = 0$

(۵)

$\alpha\beta = \frac{c}{a} = \frac{-1}{2}$



$\frac{|\alpha - \beta| \times 2}{2} = \frac{3}{4}$ $(m+2)^2 - 8m > 0$

همیشه برقرار $(m-2)^2 \geq 0$

عرض از مبدأ $= m$ < 0 $\frac{\frac{\sqrt{\Delta}}{|a|} \times |m|}{2} = \frac{3}{4}$

$\frac{\sqrt{\Delta}}{|a|} \times m = \frac{3}{2}$ $\sqrt{(m+2)^2 - 4(2m)} \times |m| = \frac{3}{2}$ $|(m-2)||m| = 3$

$m < 0$, $2m$ $m = 3$

$m^2 - 2m - 3 > 0$ $(m-3)(m+1)$ ↗ ↘ $m = -1$

$0 < m < 2$, $-(m-2)(m) = 3$ $-m^2 + 2m - 3 = 0$ $\Delta = 4 - 12 < 0$ جواب ندارد

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$y = x^2 + ax + 1$ ext $\left| x = \frac{-b}{2a} = -\frac{1}{2} \right\}$ (2

$y = x^2 - 2x + 1$ ext $\left| \frac{2}{2} \right.$

a) min ext $\left| y = \frac{-\Delta}{4a} = -\frac{(9 - 4a^2)}{4a} = \frac{7}{8} \right.$ (3

$\frac{4a^2 - 9}{4a} = \frac{7}{8}$ $32a^2 - 72 = 28a \rightarrow \frac{1}{4} \times 32a^2 - 28a - 72 = 0$

$a = -\frac{9}{8}$ ✓ $\frac{16}{8} = 2$

$8a^2 - 7a - 18$ $a^2 - 7a - 18 \times 8$ $(a + 9)(a - 16)$ (2

$x, x+2 \rightarrow \alpha\beta = (x)(x+2) = \frac{c}{a} = a = x^2 + 2x \rightarrow x^2 + 2x = 2x + 1$

$x^2 = 1$ $x = \pm 1$ ✓ -1 غیرق

$\alpha + \beta = 2x + 2 = \frac{a+1}{1} = \frac{-b}{a}$

$a = 2x + 1$

$a = 3$

$(y)(y+2) = b$ $y + y + 2 = 2a + 1 = 10$ $y + 1 = 5$ $y = 4$

$(4)(6) = 24$

$24 - 3 = 21\}$

ext $\left| \frac{-b}{2a} = \frac{-a}{-2a} = \frac{1}{2} \right\} \rightarrow y = -a \times \frac{1}{4} + \frac{a}{2} + 2 = \frac{a}{4} + 2$ (8

$\frac{a}{4} + 2 = 2b \times \frac{1}{2} - \frac{b}{2} - 1$ $\frac{a}{4} + 2 = -1$ $\frac{a}{4} = -3$ $a = -12$

ext $\left| \frac{-b}{2a} = \frac{b}{4b} = \frac{1}{4} \right)$ $y = 2b \times \frac{1}{16} - b \times \frac{1}{4} - 1 = \frac{-b}{8} - 1$

$\frac{-b}{8} - 1 = 12 \times \frac{1}{16} - 12 \times \frac{1}{4} + 2 = \frac{3}{4} - 3 + 2 = -\frac{1}{4}$

ARSH $\frac{-b}{8} - 1 = -\frac{1}{4}$ $\frac{-b}{8} = \frac{3}{4} \Rightarrow b = -6$ $b + a =$

$-6 + 12 = 6\}$

Scanned with CamScanner

subject:
Year Mont. Day ( )

$۲۵\alpha^۲ = ۱$

$\alpha = \pm \frac{1}{5}$

$\alpha\beta = \frac{\beta}{۱۰\alpha}$ $\alpha = \frac{1}{۱۰\alpha}$

$\alpha = \frac{1}{5}$ $\alpha = x$ $۲۵ \times \frac{1}{5^۳} + \frac{۴}{5} + \beta = ۰$ $۱ + \beta = ۰$ $\beta = -۱$

$\beta < \alpha$ غق

$\alpha = -\frac{1}{5}$ $\alpha = x$ $۲۵ \times -\frac{1}{5} \times \frac{1}{۲۵} - \frac{۴}{5} + \beta = ۰$ $-۱ + \beta = ۰$ $\beta = ۱$

$\alpha < \beta$ ✓

ext $\left| \frac{-b}{۲a} = \frac{-۴}{5۰\alpha} = \frac{-۴}{5۰ \times -\frac{1}{5}} = \frac{-۴}{-۱۰} = \frac{۴}{۱۰} \right.$

$y = \frac{-\Delta}{۴a} = \frac{-(۱۶ - ۱۰۰\alpha\beta)}{۱۰۰\alpha} = +$

ناحیه اول

$ab = a + b - ۱ = \frac{c}{a}$

$ab + ۱ = a^۲ + b^۲ - ۱۳$ $a + \beta = a^۲ + b^۲ - ۱۳$

$a^۲ + b^۲ + ۲ab - ۲ab = ۱۳$

$(a+b)^۲ - ۲ab = ۱۳$ $(a+b)^۲ - ۲(a+b) + ۲ - ۱۳ = ۰$

$(a+b)^۲ - ۲(a+b) - ۱۰ = ۰$

$(a+b-5)(a+b+۲) = ۰$

$a+b = 5$ $a+b = -۲$

Sadaf